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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,308	10/12/1999	PRADEEP K. KATHAIL	CISCO-1321	5986

7590 05/23/2002

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EXAMINER

PHAM, HUNG Q

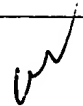
ART UNIT

PAPER NUMBER

2172

DATE MAILED: 05/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/416,308	Applicant(s) KATHAIL ET AL. 	
	Examiner HUNG Q PHAM	Art Unit 2172	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 March 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. The applicants amended claims 1-6, 10-16 and 18 in the amendment received on 03/27/2002. The pending claims are 1-18. Applicants' arguments have been fully considered by the examiner.

2. Applicant's arguments with respect to claims 1, 10, 16 and 18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of

each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciscon et al. [USP 6,226,644 B1].**

Regarding to claims 1, Ciscon teaches a method for routing data messages between a plurality of processes running on a plurality of computers connected to a network, each data message including data and indicating at least one property of the data, including at least one routing process that receives at least one interest message of at least one application process and incorporates information from the interest message into a data structure. Each interest message has information including the identification of at least one property of the type of data messages that the respective application process is interested in receiving (abstract). To register a data object interest as **the router notification** in accordance with the preferred embodiment, one of the following two forms of the routine TR\_REGISTER\_INTEREST( ) is used, the first is in the form of TR\_REGISTER\_INTEREST(TRI\_OBJECT, TTF\_TEMPLATE, USRRoutine, USRARG, OBJTEMPLATE), another way of registering an interest is using the form TR\_REGISTER\_INTEREST(TRI\_OBJECT, TTF\_EXPLICIT, USRRoutine, ARG, OBJTYPE, PROPLIST). To notify other processes of its interests in accordance with the preferred embodiment, an application or router process transmits

an interest object ST\_RTR\_INTEREST(SIZE, FLAGS, DUMMY, TEMPLATE). An application process sends an interest object to its local router, which forwards the application's interest object to other routers. A router process can also initiate an interest object, which is sent to router and child processes that have registered an interest in the router's interest change as **the router notification of changes to router configuration data** (Col. 9, lines 22-62). Each router process of the preferred embodiment includes a connection table and an interest table as **the database subsystem**. The connection table contains a list of the public connections and the private connections to the local router. The interest table contains a list of the interests of the local router and the interests of child processes and all the other routers connected via public connections such as:

(1) TYPE: LOCAL ROUTINE=0.times.42E3BC TEMPLATE:

S\_TYPE:ST\_RTR\_INTEREST NUMPROPS=1 PROPO:{PHYSICAL:D1:D2}

(2) TYPE: REMOTE HOSTID=[0.times.A,0.times.C] TEMPLATE: S\_TYPE:VIDEO  
NUMPROPS=1 PROPO:{PHYSICAL:D1:D3}

(3) TYPE: REMOTE HOSTID=[0.times.1,0.times.B] TEMPLATE:

ST\_TYPE:S\_RTR\_STARTUP NUMPROPS=1 PROPO:{PHYSICAL:D4:D5} (Col. 9, line 63-Col. 10, line 39) as **router configuration and database subsystem being**

**operatively coupled for communication with a plurality of router subsystems**. As

in FIG. 4 and beginning in step 402, when a router is initially started up, the router sends out a startup object ST\_RTR\_STARTUP( ) to notify the other routers of its existence (Col. 12, line 65-Col. 13, line 12). Upon startup, the application process

transmits a startup object to its local router. Next, the application process registers certain of its interests in its mini-interest table and transmits an interest object ST\_RTR\_INTEREST( ) to its local router to indicate its interests. Registration of interests and transmission of interest change objects are a continuing process for the application process as they are executing (Col. 13, lines 13-26). An interest change is indicated by the receipt of the interest change object ST\_RTR\_INTEREST( ). If an interest change from another router is received, control proceeds to step 508, where a subroutine INTEREST\_CHANGE for handling interest changes is called (Col. 13, line 64-Col. 14, lines 2). As in FIG. 7, a flow diagram is shown of the subroutine INTEREST\_CHANGE invoked in step 508 of FIG. 5 to handle the receipt of interest change objects distributed by a child process or other routers. This indicates the steps of **transmitting a notification registration request by a first of said plurality of subsystems to said database subsystem, said registration request indicating configuration data for which said first subsystem requires registration for notification of changes to said configuration data**. Cisco further discloses that when an interest change object ST\_RTR\_INTEREST( ) is received, the interest table of the receiving router is updated in step 702 (Col. 15, lines 34-40). The interest template included in the object ST\_RTR\_INTEREST( ) is added to or replaces an entry in the local router's interest table. The interest change object ST\_RTR\_INTEREST( ) includes the source address of the process originating the interest change. From the source address, the receiving router determines the host ID of the originating process, which is added to the interest table. Control then proceeds to step 704, where it is determined if

the interest change is requested by one of the router's child processes or by another router, as indicated by the FLAGS field of the object ST\_RTR\_INTEREST( ) (Col. 15, lines 44-54). Each interest object ST\_RTR\_INTEREST( ) includes a source address, which is preferably the physical address of the process transmitting the interest object. When distributed by another router process, the source address is that of the originating router. However, before forwarding the interest object to its child process, the router substitutes the originating router's source address with its own (Col. 16, lines 1-8). This teaching indicates the steps of ***receiving said notification registration request by said database subsystem; and registering said first of said plurality of subsystem for notification by said database subsystem***. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Cisco method for transacting router notification of changes by including the steps of transmitting a notification registration of changes, receiving and registering notification by database subsystem in order to notify a change of configuration data.

Regarding to claims 10, Cisco teaches a program storage device for routing data messages between a plurality of processes running on a plurality of computers connected to a network, each data message including data and indicating at least one property of the data, including at least one routing process that receives at least one interest message of at least one application process and incorporates information from the interest message into a data structure. Each interest message has information including the identification of at least one property of the type of data messages that the

respective application process is interested in receiving (abstract). To register a data object interest as **the router notification** in accordance with the preferred embodiment, one of the following two forms of the routine TR\_REGISTER\_INTEREST( ) is used, the first is in the form of TR\_REGISTER\_INTEREST(TRI\_OBJECT, TTF\_TEMPLATE, USRRoutine, USRARG, OBJTEMPLATE), another way of registering an interest is using the form TR\_REGISTER\_INTEREST(TRI\_OBJECT, TTF\_EXPLICIT, USRRoutine, ARG, OBJTYPE, PROPLIST). To notify other processes of its interests in accordance with the preferred embodiment, an application or router process transmits an interest object ST\_RTR\_INTEREST(SIZE, FLAGS, DUMMY, TEMPLATE). An application process sends an interest object to its local router, which forwards the application's interest object to other routers. A router process can also initiate an interest object, which is sent to router and child processes that have registered an interest in the router's interest change as **the router notification of changes to router configuration data** (Col. 9, lines 22-62). Each router process of the preferred embodiment includes a connection table and an interest table as **the database subsystem**. The connection table contains a list of the public connections and the private connections to the local router. The interest table contains a list of the interests of the local router and the interests of child processes and all the other routers connected via public connections such as:

(1) TYPE: LOCAL ROUTINE=0.times.42E3BC TEMPLATE:

S\_TYPE:ST\_RTR\_INTEREST NUMPROPS=1 PROPO:{PHYSICAL:D1:D2}

(2) TYPE: REMOTE HOSTID=[0.times.A,0.times.C] TEMPLATE: S\_TYPE:VIDEO



NUMPROPS=1 PROPO:{PHYSICAL:D1:D3}

(3) TYPE: REMOTE HOSTID=[0.times.1,0.times.B] TEMPLATE:

ST\_TYPE:S\_RTR\_STARTUP NUMPROPS=1 PROPO:{PHYSICAL:D4:D5} (Col. 9, line 63-Col. 10, line 39) as ***router configuration and being operatively coupled for***

***communication with a plurality of router subsystems***. As in FIG. 4 and beginning in step 402, when a router is initially started up, the router sends out a startup object.

ST\_RTR\_STARTUP( ) to notify the other routers of its existence (Col. 12, line 65-Col.

13, line 12). Upon startup, the application process transmits a startup object to its local

router. Next, the application process registers certain of its interests in its mini-interest

table and transmits an interest object ST\_RTR\_INTEREST( ) to its local router to

indicate its interests. Registration of interests and transmission of interest change

objects are a continuing process for the application process as they are executing (Col.

13, lines 13-26). An interest change is indicated by the receipt of the interest change

object ST\_RTR\_INTEREST( ). If an interest change from another router is received,

control proceeds to step 508, where a subroutine INTEREST\_CHANGE for handling

interest changes is called (Col. 13, line 64-Col. 14, lines 2). As in FIG. 7, a flow diagram

is shown of the subroutine INTEREST\_CHANGE invoked in step 508 of FIG. 5 to

handle the receipt of interest change objects distributed by a child process or other

routers. This indicates the steps of ***transmitting a notification registration request by***

***a first of said plurality of subsystems to said database subsystem, said***

***registration request indicating configuration data for which said first of said***

***plurality of subsystem requires registration for notification of changes to said***

**configuration data.** Ciscen further discloses that when an interest change object ST\_RTR\_INTEREST( ) is received, the interest table of the receiving router is updated in step 702 (Col. 15, lines 34-40). The interest template included in the object ST\_RTR\_INTEREST( ) is added to or replaces an entry in the local router's interest table. The interest change object ST\_RTR\_INTEREST( ) includes the source address of the process originating the interest change. From the source address, the receiving router determines the host ID of the originating process, which is added to the interest table. Control then proceeds to step 704, where it is determined if the interest change is requested by one of the router's child processes or by another router, as indicated by the FLAGS field of the object ST\_RTR\_INTEREST( ) (Col. 15, lines 44-54). Each interest object ST\_RTR\_INTEREST( ) includes a source address, which is preferably the physical address of the process transmitting the interest object. When distributed by another router process, the source address is that of the originating router. However, before forwarding the interest object to its child process, the router substitutes the originating router's sources address with its own (Col. 16, lines 1-8). This teaching indicates the steps of **receiving said notification registration request by said database subsystem; and registering said first of said plurality of subsystem for notification by said database.** Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Ciscen method for transacting router notification of changes by including the steps of transmitting a notification registration of changes, receiving and registering notification by database subsystem in order to notify a change of configuration data.

Regarding to claims 2 and 11, Ciscn teaches all the claimed subject matters as discussed in claims 1, 10 and further discloses ***router configuration data using a tree structure having a plurality of tuples by said database subsystem*** (Col. 5, lines 25-28).

Regarding to claims 3 and 12, Ciscn teaches all the claimed subject matters as discussed in claims 2, 11 and further discloses the steps of ***finding a requested tuple storing said configuration data for which notification is requested; and setting the notification flag for said requested tuple*** (Col. 9, lines 22-34).

Regarding to claims 4 and 13, Ciscn teaches all the claimed subject matters as discussed in claims 3, 12 and further discloses the steps of ***registering said first of said plurality of subsystem for notification further comprises:***

***(a) determining whether said notification registration request included a request for notification of a name space*** (see col. 9, lines 22-27); ***and (b) setting a notification flag for children nodes of said requested tuple responsive to a determination that said notification registration request included said notification of a name space*** (see col. 5, lines 34-67).

Regarding to claims 5 and 14 Ciscn et al. teaches all the claimed subject matters as discussed in claims 1, 10 and fails to disclose the unregistration request. However, Ciscn et al. teaches the method of changing interest by the function call

ST\_RTR\_INTEREST ( ) (see col. 13, line 64-col. 14, line 2), the function has the parameter TEMPLATE as a pointer that points to a template containing the properties of an object that the process is interested in (see col. 9, lines 48-57) and the properties of the registration request as discussed in claim 1 (see col. 9, lines 22-47, col. 9, line 63-col. 10, line 39). Thus, the interests that a user are not interested in can be changed or users can assign a null value to an interest in order to delete a current one, and this implies the unregistration process. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include the steps of ***transmitting a notification a unregistration request by said first of said plurality of subsystems to said database subsystem, said unregistration request indicating the configuration data for which said first subsystem requires unregistration of said notification; receiving said notification unregistration request by said database subsystem; and unregistering said first of said of plurality of subsystem for notification by said database subsystem*** into the method of Ciscon et al. in order to change the configuration data of a router as requested by users.

Regarding to claims 6, Ciscon teaches all the claimed subject matters as discussed in claims 1, 10 and further discloses the method comprises: ***(a) transmitting a router configuration transaction request by a second of said plurality of subsystem to said database*** (see col. 9, lines 22-47, col. 9, line 63-col. 10, line 39); ***(b) receiving said router configuration transaction request by said database subsystem*** (see col. 9, line 63-col. 10, lines 39); ***(c) carrying out said requested***

***transaction by said database subsystem, said transaction changing said router configuration data maintained by said database subsystem*** (see col. 10, lines 14-39); ***(d) determining each of said subsystems registered for notification of changes to said router configuration data*** (see col. 10, lines 18-21); and ***(e) notifying said each of said plurality subsystems determined to be registered for notification of changes to said router configuration data*** (see col. 9, lines 48-62).

Regarding to claim 7, Ciscn teaches all the claimed subject matters as discussed in claim 6 and further discloses ***router configuration transaction request is a create request*** (see col. 9, lines 22-24).

Regarding to claim 8, Ciscn et al. teaches all the claimed subject matters as discussed in claim 6 and fails to disclose the method for a delete request. However, Ciscn et al. teaches the method of changing interest by the function call `ST_RTR_INTEREST ( )` (see col. 13, line 64-col. 14, line 2), the function has the parameter `TEMLATE` as a pointer that points to a template containing the properties of an object that the process is interested in (see col. 9, lines 48-57) and the properties of the registration request as discussed in claim 1 and 6 (see col. 9, lines 22-47, col. 9, line 63-col. 10, line 39). Thus, the interests that a user are not interested in can be changed or users can assign a null value to an interest in order to delete a current one, and this implies a delete request. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the changing interest request in

Ciscon et al. to the delete request in order to delete the router configuration of a router that is no longer in use.

Regarding to claim 9, Ciscon et al. teaches all the claimed subject matters as discussed in claim 6 and fails to disclose the method for a modify request. However, Ciscon et al. teaches the method of changing interest by the function call ST\_RTR\_INTEREST ( ) (see col. 13, line 64-col. 14, line 2), the function has the parameter TEMPLTE as a pointer that points to a template containing the properties of an object that the process is interested in (see col. 9, lines 48-57) and the properties of the registration request as discussed in claim 1 and 6 (see col. 9, lines 22-47, col. 9, line 63-col. 10, line 39). Thus, the interests that a user are not interested in can be changed or users can assign a null value to an interest in order to delete a current one, and this implies a modify request. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the changing interest request in Ciscon et al. to the modify request in order to change the router configuration as requested by user.

Regarding to claims 15, Ciscon teaches all the claimed subject matters as discussed in claims 1, 10 and further discloses the method comprises: **(a) transmitting a router configuration transaction request by a second of said plurality of subsystem to said database** (see col. 9, lines 22-47, col. 9, line 63-col. 10, line 39); **(b) receiving said router configuration transaction request by said database**

***subsystem*** (see col. 9, line 63-col. 10, lines 39); ***(c) carrying out said requested transaction by said database subsystem, said transaction changing said router configuration data maintained by said database subsystem*** (see col. 10, lines 14-39); ***(d) determining each of said subsystems registered for notification of changes to said router configuration data*** (see col. 10, lines 18-21); and ***(e) notifying said each of said plurality subsystems determined to be registered for notification of changes to said router configuration data*** (see col. 9, lines 48-62).

Regarding to claims 16 and 18, Ciscen teaches a router operating system and device for routing data messages between a plurality of processes running on a plurality of computers connected to a network, each data message including data and indicating at least one property of the data, including at least one routing process that receives at least one interest message of at least one application process and incorporates information from the interest message into a data structure. Each interest message has information including the identification of at least one property of the type of data messages that the respective application process is interested in receiving (abstract). The Ciscen system for routing data messages comprises: a connection table and an interest table as ***the database subsystem*** (Col. 9, lines 63-64). The connection table contains a list of the public connections and the private connections to the local router. The interest table contains a list of the interests of the local router and the interests of child processes and all the other routers connected via public connections such as:

(1) TYPE: LOCAL ROUTINE=0.times.42E3BC TEMPLATE:

S\_TYPE:ST\_RTR\_INTEREST NUMPROPS=1 PROPO:{PHYSICAL:D1:D2}

(2) TYPE: REMOTE HOSTID=[0.times.A,0.times.C] TEMPLATE: S\_TYPE:VIDEO

NUMPROPS=1 PROPO:{PHYSICAL:D1:D3}

(3) TYPE: REMOTE HOSTID=[0.times.1,0.times.B] TEMPLATE:

ST\_TYPE:S\_RTR\_STARTUP NUMPROPS=1 PROPO:{PHYSICAL:D4:D5} (Col. 9, line

63-Col. 10, line 39) as **(b) a plurality of client subsystems, each operatively**

**coupled to said database subsystem; and (c) a database operatively coupled to**

**said database subsystem to store router configuration information.** As in FIG. 4

and beginning in step 402, when a router is initially started up, the router sends out a

startup object ST\_RTR\_STARTUP( ) to notify the other routers of its existence (Col. 12,

line 65-Col. 13, line 12). Upon startup, the application process transmits a startup object

to its local router. Next, the application process registers certain of its interests in its

mini-interest table and transmits an interest object ST\_RTR\_INTEREST( ) to its local

router to indicate its interests. Registration of interests and transmission of interest

change objects are a continuing process for the application process as they are

executing (Col. 13, lines 13-26). An interest change is indicated by the receipt of the

interest change object ST\_RTR\_INTEREST( ). If an interest change from another router

is received, control proceeds to step 508, where a subroutine INTEREST\_CHANGE for

handling interest changes is called (Col. 13, line 64-Col. 14, lines 2). As in FIG. 7, a flow

diagram is shown of the subroutine INTEREST\_CHANGE invoked in step 508 of FIG. 5

to handle the receipt of interest change objects distributed by a child process or other

routers. Cisco further discloses that when an interest change object



ST\_RTR\_INTEREST( ) is received, the interest table of the receiving router is updated in step 702 (Col. 15, lines 34-40). The interest template included in the object ST\_RTR\_INTEREST( ) is added to or replaces an entry in the local router's interest table. The interest change object ST\_RTR\_INTEREST( ) includes the source address of the process originating the interest change. From the source address, the receiving router determines the host ID of the originating process, which is added to the interest table. Control then proceeds to step 704, where it is determined if the interest change is requested by one of the router's child processes or by another router, as indicated by the FLAGS field of the object ST\_RTR\_INTEREST( ) (Col. 15, lines 44-54). Each interest object ST\_RTR\_INTEREST( ) includes a source address, which is preferably the physical address of the process transmitting the interest object. When distributed by another router process, the source address is that of the originating router. However, before forwarding the interest object to its child process, the router substitutes the originating router's source address with its own (Col. 16, lines 1-8). This indicates **a notification unit, said notification unit configured to provide notification of changes to router configuration information to each of said plurality of subsystems registered to receive notification of changes to said router configuration information.** Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Ciscos system for transacting router notification of changes by including the steps of transmitting a notification registration of changes, receiving and registering notification by database subsystem in order to notify a change of configuration data.

Regarding to claim 17, Ciscon teaches all the claimed subject matters as discussed in claim 16 and further discloses: ***database is structured and configured as a tree database*** (see col. 5, lines 25-28).

### ***Conclusion***

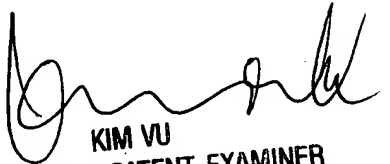
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746 7239 for regular communications and 703-746 7238 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305 3900.

Examiner: Hung Pham

May 11, 2002

  
KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100